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Total Number of Pages in This Submission

Application Number	09/670,230			
Filing Date	September 28, 2000			
First Named Inventor	Andrew R. Barron			
Art Unit	1731			
Examiner Name	Christopher Fiorilla			
Attorney Docket Number	1789-02202			

ENCLOSURES (check all that apply)					
Fee Transmittal Form	☐ Drawing(s)	After Allowance Communication to Group			
☐ Fee Attached	Licensing-related Papers	·			
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118329.1789.02202

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P. O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450.

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PTO/SB/017 (10-03) Approved for use through 07/31/2006. OMB 0651-0032 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Inder the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number Complete if Known FEE TRANSMITTAL Application Number 09/670,230 VAN 2 6 2004 For FY 2004 Filing Date September 28, 2000 First Named Inventor Andrew R. Barron Effective 10/01/2003. Patent fees are subject to annual revision. **Examiner Name** Christopher Fiorilla Applicant claims small entity status. See 37 CFR 1.27 Art Unit 1731 TOTAL AMOUNT OF PAYMENT Attorney Docket No. 1789-02202 **METHOD OF PAYMENT** (Check all that apply) FEE CALCULATION (continued) 3. ADDITIONAL FEES □ Check ☐ Credit Card ☐ Money ☐ Other ☐ None Large Entity **Small Entity** Fee Fee Fee Fee Fee Description □ Deposit Account: Code (\$) Code (\$) Fee Paid Deposit Account Number: 03-2769 1051 130 2051 65 Surcharge - late filing fee or oath S Deposit Account Name: Conley Rose, P.C. 1052 Surcharge - late provisional filing 50 2052 25 fee or cover sheet The Director is authorized to: (check all that apply) 1053 130 1053 Non-English specification 1812 2,520 Charge fee(s) indicated below 1812 2,520 For filing a request for ex parte Charge any additional fee(s) during the pendency of this application reexamination Charge fee(s) indicated below, except for the filing fee 18042 920* 1804 920* Requesting publication of SIR prior to the above-identified deposit account to Examiner action 1805 1.840* 1805 Requesting publication of SIR after Credit any overpayments Examiner action FEE CALCULATION 1251 110 2251 Extension for reply within first month 1252 2252 420 Extension for reply within second month \$ 1. BASIC FILING FEE 1253 950 2253 Extension for reply within third month Large Entity Small Entity 1254 1,480 2254 Extension for reply within fourth month \$ Fee Fee Fee Fee Fee Description 1255 2,010 2255 1.005 Extension for reply within fifth month Code (\$) Code 1401 330 2401 Notice of Appeal 165 1001 770 2001 385 Utility filing Fee 1402 330 2402 165 Filing a brief in support of an appeal 1002 340 2002 170 Design filing fee 1403 280 2403 Request for oral hearing 140 \$ 1003 530 2003 265 Plant filing fee 1451 1,510 1452 1.510 Petition to institute a public use 1004 770 2004 385 Reissue filing fee proceeding S 1005 160 2005 80 Provisional filing fee 1452 110 2452 Petition to revive - unavoidable 1453 1.330 2453 Petition to revive - unintentional 665 SUBTOTAL (1) 1501 1,330 2501 665 Utility issue fee (or reissue) 480 2502 1502 240 Design issue fee 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE 1503 640 2503 320 Plant issue fee Fee from 130 1460 1460 Petitions to the Commissioner 130 Extra Claims below Fee Paid 1807 1806 50 50 Processing fee under 37 CFR 1.17(g) **Total Claims** 20** 18.00 123 50 123 50 Petitions related to provisional applications Independent 86.00 1806 180 1806 180 Submission of Information Disclosure Stmt \$180.00 8021 40 8021 Recording each patent assignment per Multiple Dependent 290.00 = \$ 00.00 property (times number of properties) 1809 770 2809 Filing a submission after final rejection Large Entity Small Entity (37 CFR § 1.129(a)) \$ Fee Fee Fee Description Fee Fee 1810 770 2810 For each additional invention to be Code (\$) Code (\$) examined (37 CFR § 1.129(b)) 1202 18 2202 Claims in excess of 20 1801 770 2801 Request for Continued Examination (RCE) \$ 1201 86 2201 43 Independent Claims in excess of 3 1802 900 1802 Request for expedited examination 2203 1203 290 145 Multiple dependent claim, if not paid of a design application 1204 86 2204 43 Reissue independent claims Other fee (specify) over original patent 1205 18 2205 Reissue claims in excess of 20 *Reduced by Basic Filing Fee Paid SUBTOTAL (3) \$180.00 and over original patent SUBTOTAL (2) \$ ** or number previously paid, if greater; For Reissues, see above

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Marcella D Watkins

Registration No.

36,962

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THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT:	Andrew R. Barron et al.	§	GROUP ART UNIT:
SERIAL NO.:	09/670,230	§ §	1731
FILED:	September 28, 2000	§ §	EXAMINER: Christopher A. Fiorilla
FOR:	Chemical Control Over	8 § 8	

Carboxylate-Alumoxanes

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Atty. Dkt. No.: 1789-02202

Date: January 22, 2004

Commissioner for Patents P. O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

In accordance with 37 CFR §1.97, §1.98, applicant is providing herewith copies of the supplementary items listed on the attached U.S. Patent and Trademark Office Form PTO 1449. If this application was filed prior to June 30, 2003, a copy of each publication listed on Form PTO-1449 is enclosed herewith. This information is supplemental to the Information Disclosure Statement and Form PTO 1449 filed in the above-referenced case on March 3 and March 4, 2003.

Consideration of the following related applications and additional information is requested: U.S. Patent Application Serial No. 09/133,642, filed August 13, 1998 entitled Methods and

Material for Fabrication of Alumoxane Polymers.

Pursuant to 37 C.F.R. § 1.98 (d), copies of certain patents, publications, pending U.S. application(s) or other information, as specified in 37 C.F.R. § 1.98 (a), listed in the attached Form PTO-1449 are not provided herewith, as they have been previously submitted to, or cited by, the Office in the above-mentioned earlier U.S. Patent Application(s). The Information Disclosure Statement filed in the earlier application(s) complies with 37 C.F.R. § 1.98 (a)-(c).

The submission of this Supplemental Information Disclosure Statement and Form PTO-1449 is not an admission that the art cited is "prior" with respect to the present invention, nor is it a representation that no better art exists. Applicants hereby reserve the right to swear behind or otherwise 01/29/2004 MAHMED1 00000135 032769 09670230

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disprove any alleged "prior" nature of any art cited should the facts support and the situation warrant such an action.

It is submitted that the art cited does not constitute a bar to the patentability of Applicants' invention under 35 U.S.C. § 102 or § 103.

Because an Office Action has been entered in this case, this Information Disclosure Statement is being filed under C.F.R. 1.97(c). Applicant hereby authorizes the Commissioner to charge Deposit Account 03-2769 of Conley Rose, P.C. the amount of \$180 so that this Information Disclosure Statement may be considered.

Respectfully submitted,

Marcella D. Watkins Reg. No. 36,962

CONLEY ROSE, P.C.

P. O. Box 3267

Houston, Texas 77253-3267

(713) 238-8000

ATTORNEY/AGENT FOR APPLICANT

JAN 2 6 2004 Form PTO-1449 (Modified) Atty. Docket No. Serial No. 1789-02202 09/670,230 INFORMATION DISCLOSURE STATEMENT BY APPLICANT Applicant (Use several sheets if necessar) Andrew R. Barron Filing Date Group September 28, 2000 1731 OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.) Anderson et al., Titania and Alumina Ceramic Membranes, Journal of Membrane Science, 39 (1988) pp. 243-258 AB Baltus, Characterization of the Pore Area Distribution in Porous Membranes Using Transport Measurements, Journal of Membrane Science, 123 (1197) pp. 165-184 AC Furneaux et al., The Formation of Controlled-porosity Membranes from Anodically Oxidized Aluminum, Nature Vol. 337, January 12, 1989 (pp. 147-149) AD Kim et al., Hydraulic and Surface Characteristics of Membranes with Parallel Cylindrical Pores, Journal of Membrane Science, 123 (1997) pp. 303-314 AE Vries et al., Thermal Stability and its Improvement of the Alumina Membrane Top-layers Prepared by Sol-gel Methods, Journal of Materials Science, 26 (1991) pp. 715-720 AF Michalske et al., Strength and Toughness of Continuous-Alumina-Fiber-Reinforced Glass-Matrix Composites, Journal of American Ceramic Society, Vol. 71, No. 9 pp. 725-731 (1988) AG Nogami, Sol-gel Preparation of SiO₂ Glasses Containing Al₂O₃ or ZrO₂, Journal of Non-Crystalline Solids 178 (1994) pp. AH Okubo et al., Preparation of y-alumina Thin Membrane by Sol-gel Processing and its Characterization by Gas Permeation, Journal of Materials Science 25 (1990) pp. 4822-4827 ΑI Rezgui et al., Control of Magnesia-alumina Properties by Acetic Acid in Sol-gel Synthesis, Journal of Non-Crystalline Solids 210 (1997) pp. 287-297 ΑJ Shelleman et al., Alpha Alumina Transformation in Seeded Boehmite Gels, Journal of Non-Chrystalline Solids 82 (19986) ΑK Wilson et al., The Porosity of Aluminum Oxide Phases Derived from Well-Crystallized Boehmite: Correlated Electron Microscope, Adsorption, and Porosimetry Studies, Journal of Colloid and Interface Science, Vol. 82, No. 2, August 1981 (pp. 507-517) AL Yoldas, Alumina Gels that Form Porous Transparent Al₂O₂, Journal of Material Science AM Adkins, The Selective Activation of Alumina for Decarboxylation or for Dehydration, Selective Activation of Alumina pp. 2175-2186 Courtright, Engineering Property Limitations of Structural Ceramics and Ceramic Composites Above 1600°C, Ceramic AN Engineering Science Proc. 12(9-10) pp. 1725-1744 (1991) Elaloui et al., Influence of the Sol-Gel Processing Method on the Structure and the Porous Texture of Nondoped Aluminas, AO Journal of Catalysis 166, pp. 340-346 (1997) ΑP Sirkar, New Membrane Materials and Processes for Separation, Published by American Institute of Chemical Engineers, AQ Kareiva et al., Carboxylate-Substituted Alumoxanes as Processable Precursors to Transition Metal-Aluminum and Lanthanide-Aluminum Mixed-Metal Oxides: Atomic Scale Mixing via a New Transmetalation Reaction, Chemistry of Materials Vol. 8, Number 9, pp. 2331-2340 AR Kingery et al., Introduction to Ceramics Wiley-Interscience Publication, 1960 AS Landry et al., From Minerals to Materials: Synthesis of Alumoxanes from the Reaction of Boehmite with Carboxylic Acids, Journal of Mater. Chem., 1995, 5(2) pp. 331-341 AT Lao et al., Microporous Inorganic Membranes: Preparation by the Sol-gel Process and Characterization of Unsupported Composite Membranes of Alumina and Polyoxoaluminium Pillard Montmorillonite, Journal of Materials Science Letters 13 (1994) pp. 895-897 Low et al., Synthesis and Properties of Spodumene-modified Mullite Ceramics formed by Sol-gel Processing, Journal of ΑU Materials Science Letters 16 (1997) pp. 982-984 Nikolic et al., Alumina Strengthening by Silica Sol-gel Coating, Thin Solid Films 295 (1997) pp. 101-103 A۷ Rezgui et al., Chemistry of Sol-Gel Synthesis of Aluminum Oxides with in Situ Water Formation: Control of the AW Morphology and Texture, Chem Mater (1994) 6, pp. 2390-2397 ΑX Serna et al., Division S-9 ----Sole Mineralogy, Soil Sci. Soc. Am. Journal, Vol. 41 (1997) pp. 1009-1013 Yoldas, Alumina Gels that Form Porous Transparent Al₂O₃, Journal of Materials Science 10 (1975) pp. 1856-1860 ΑY AZZaspalis et al., Synthesis and Characterization of Primary Alumina, Titania and Binary Membranes, Journal of Materials Science 27 (1992) pp. 1023-1035 **EXAMINER** DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP '609; Draw line through citation if not in conformance

and not considered. Include copy of this form with next communication to the applicant.